

"Changes Made," showing the current amendments to the specification and claims is attached hereto.

Please amend the above-identified application as follows:

IN THE SPECIFICATION:

Delete paragraph [0008] beginning on page 2 and ending on page 3, and replace with the following:

[0008] However, the circuit configuration described above has the following disadvantage. As shown in Fig. 15, the output signals from the individual pixels are amplified by the MOS transistors Q1 provided one for each column. If the characteristics of these MOS transistors Q1 vary among them, the output signals from the pixels belonging to different columns are amplified by different amplification factors. Accordingly, although there is no variation among the output signals from the pixels arranged in an identical column, there appear variations among the output signals from the pixels arranged in an identical row because those output signals are amplified by different amplification factors. As a result, when an image is reproduced from the output signals obtained from an area sensor like this, variations in the amplification factors among the MOS transistors Q1 that are provided, one for each column, cause fixed pattern noise that looks like vertical stripes.

Delete paragraph [0019] on page 9, and replace with the following:

[0019] Now, the operation of the area sensor configured as described above will be described. Suppose that, now, image sensing is going to be performed to obtain an image that constitutes a frame. First,

(a)
Comp.

the vertical scanning circuit 1 feeds, by way of the line 3-0, a signal ϕV to the gates of the MOS transistors T3 (described later) provided in the compensation pixels G10 to Gm0. At this time, the output switching circuit 9 connects together the output side of the differential amplifier circuit 12 and the input side of the line memory 10 and in addition the switch SW is turned off so that the output signals fed from the differential amplifier circuit 12 will be fed to the line memory 10.

Delete paragraph [0072] on page 26, and replace with the following: ✓

(b)

[0072] Another example of the configuration of the compensation pixels used in cases where the ordinary pixels are configured as shown in Fig. 7 will be described below. In the configuration shown in Fig. 8, such circuit components as serve the same purposes as in the pixel shown in Fig. 7 are identified with the same reference numerals, and their explanations will be omitted.

Delete paragraph [0081] on page 29, and replace with the following: ✓

(c)

[0081] In the pixel shown in Fig. 9, such circuit elements, signal lines, and the like as serve the same purposes as in the pixel shown in Fig. 3 are identified with the same reference numerals, and their explanations will be omitted. The pixel shown in Fig. 9 is obtained by additionally providing, in the pixel shown in Fig. 3, a MOS transistor T5 having its gate connected to the node between the drain and gate of the MOS transistor T1 and having its source connected to the gate of the MOS transistor T2, and a capacitor C having one end connected to the node between the gate of the MOS transistor T2 and the source of the MOS transistor T5 and receiving the direct-current voltage VPS at the other end.

Delete paragraph [0087] on page 31, and replace with the following: ✓

US
[0087] An example of the configuration of the compensation pixels used in cases where the ordinary pixels are configured as shown in Fig. 9 will be described below with reference to Fig 10. In the configuration shown in Fig. 10, such circuit components as serve the same purposes as in the pixel shown in Fig. 9 are identified with the same reference numerals, and their explanations will be omitted.

Delete paragraph [0092] on page 32, and replace with the following: ✓

A
[0092] The compensation data thus output is used as signals representing variations in characteristics among the MOS transistors Q1 (Fig. 1) connected to the signal lines 5-1 to 5-m (Fig. 1). By configuring the compensation pixels in largely the same manner as the ordinary pixels, it is possible to obtain compensation data that reflects the potential state of the photoelectric conversion circuits; that is, it is possible to obtain compensation data under largely the same conditions under which the ordinary pixels operate.

Delete paragraph [0100] on page 35, and replace with the following: ✓

A'
[0100] In this example, the compensation pixels are configured, just like the compensation pixel of the third example of the first embodiment, as shown in Fig. 6. Thus, the compensation pixel of this example is configured and operates just as described previously in connection with the first embodiment, and therefore no description thereof will be given anew. Configured in this way, the compensation pixel of this example has an even simpler configuration than that of the third example (Fig. 5) of this embodiment, thanks to the elimination of the photoelectric

conversion circuit. This helps make the compensation pixels smaller in size than the ordinary pixels, and thereby minimizes the extent to which the size of the compensation pixels limits the size of the ordinary pixels.

Delete paragraph [0124] beginning on page 43 and ending on page 44, and replace with the following:

[0124] In this example, the compensation pixels are configured, just like the compensation pixel of the third example of the first embodiment, as shown in Fig. 6. Thus, the compensation pixel of this example is configured and operates just as described previously in connection with the first embodiment, and therefore no description thereof will be given anew. Configured in this way, the compensation pixel of this example has an even simpler configuration than that of the third example (Fig. 8) of this embodiment, thanks to the elimination of the photoelectric conversion circuit. This helps make the compensation pixels smaller in size than the ordinary pixels, and thereby minimizes the extent to which the size of the compensation pixels limits the size of the ordinary pixels.

IN THE CLAIMS:

Please replace the previous version of the claims with the following clean version, claims 16-20 have been added.